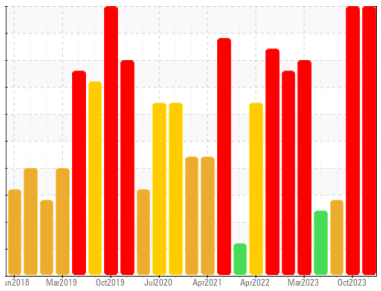
PROBLEM SUMMARY

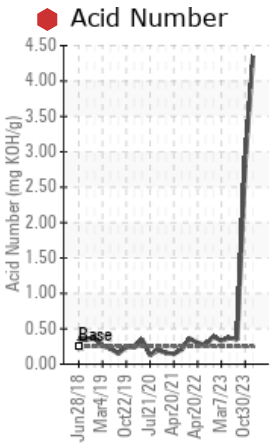
Sample Rating Trend

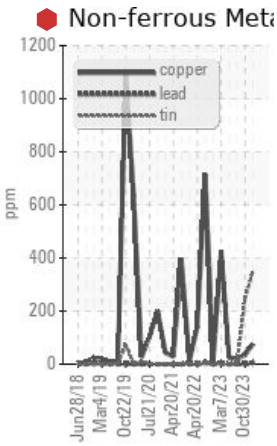


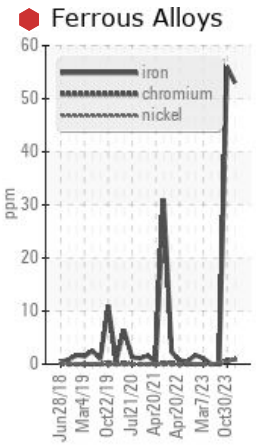
WEAR

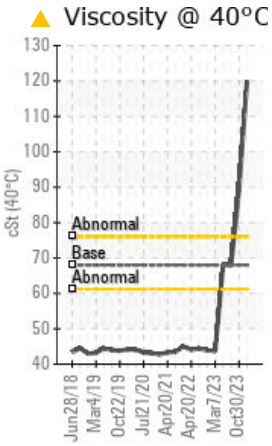
Area
Utilities
Machine Id
SCS Feedwater Turbine North
Component
Reservoir Turbine
Fluid
ROYAL PURPLE SYNFILM 68 (10 GAL)

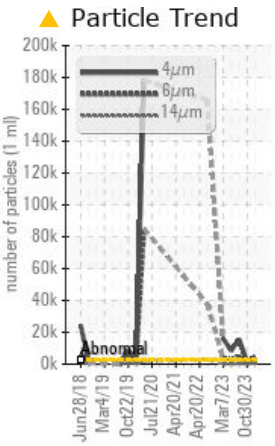
COMPONENT CONDITION SUMMARY











RECOMMENDATION

We advise that you check for a possible overheat condition. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>15	**53**	56	0
Copper	ppm	ASTM D5185m	>5	**76**	34	20
Tin	ppm	ASTM D5185m	>5	**350**	245	0
Particles >4µm		ASTM D7647	>2500	**4437**	2201	15528
Particles >6µm		ASTM D7647	>640	**2417**	1199	4668
Particles >14µm		ASTM D7647	>80	**411**	204	337
Particles >21µm		ASTM D7647	>20	**139**	69	81
Particles >38µm		ASTM D7647	>4	**21**	11	1
Oil Cleanliness		ISO 4406 (c)	>18/16/13	**19/18/16**	18/17/15	21/19/16
Acid Number (AN)	mg KOH/g	ASTM D8045	0.25	**4.35**	2.80	0.35
Visc @ 40°C	cSt	ASTM D445	68	**120**	89.0	67.9

Customer Id: CORWIN
Sample No.: WC0886175
Lab Number: 06075730
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check For Overheating	---	---	?	We advise that you check for a possible overheat condition.

HISTORICAL DIAGNOSIS

30 Oct 2023 Diag: Jonathan Hester

WEAR

We advise that you check for a possible overheat condition. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.The iron level is severe. Bearing and/or bushing wear is indicated. There is a high amount of particulates present in the oil. The AN level is above the recommended limit. The oil viscosity is higher than normal.

view report

26 Jul 2023 Diag: Jonathan Hester

WEAR

We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition.The copper level is abnormal. All other component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid.

view report

26 Apr 2023 Diag: Doug Bogart

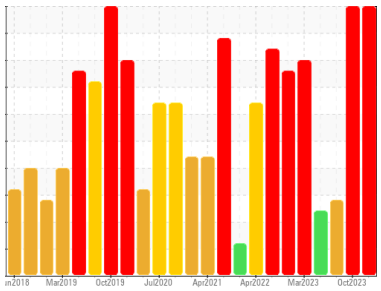
ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Utilities
Machine Id
SCS Feedwater Turbine North
Component
Reservoir Turbine
Fluid
ROYAL PURPLE SYNFILM 68 (10 GAL)

DIAGNOSIS

Recommendation
We advise that you check for a possible overheat condition. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
The iron level is severe. Bearing and/or bushing wear is indicated.

Contamination
There is a high amount of particulates present in the oil.

Fluid Condition
The AN level is above the recommended limit. The oil viscosity is higher than normal.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0886175**	WC0816899	WC0726068
Sample Date		Client Info		**24 Jan 2024**	30 Oct 2023	26 Jul 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.03	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>15	**53**	56	0
Chromium	ppm	ASTM D5185m	>4	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**<1**	0	<1
Lead	ppm	ASTM D5185m		**6**	<1	<1
Copper	ppm	ASTM D5185m	>5	**76**	34	20
Tin	ppm	ASTM D5185m	>5	**350**	245	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	90	**8**	0	24
Calcium	ppm	ASTM D5185m		**0**	<1	3
Phosphorus	ppm	ASTM D5185m		**<1**	6	3
Zinc	ppm	ASTM D5185m		**12**	3	0
Sulfur	ppm	ASTM D5185m		**2155**	602	21198

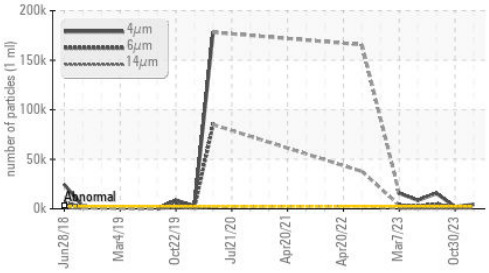
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	<1	0
Sodium	ppm	ASTM D5185m		**<1**	<1	0
Potassium	ppm	ASTM D5185m	>20	**0**	1	2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	**4437**	2201	15528
Particles >6µm		ASTM D7647	>640	**2417**	1199	4668
Particles >14µm		ASTM D7647	>80	**411**	204	337
Particles >21µm		ASTM D7647	>20	**139**	69	81
Particles >38µm		ASTM D7647	>4	**21**	11	1
Particles >71µm		ASTM D7647	>3	**2**	1	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	**19/18/16**	18/17/15	21/19/16

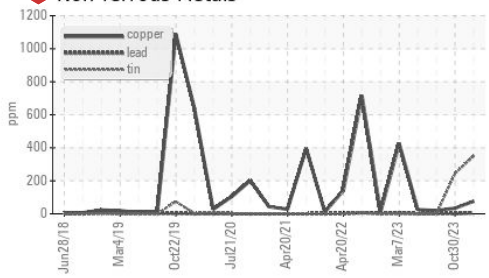
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.25	**4.35**	2.80	0.35

OIL ANALYSIS REPORT

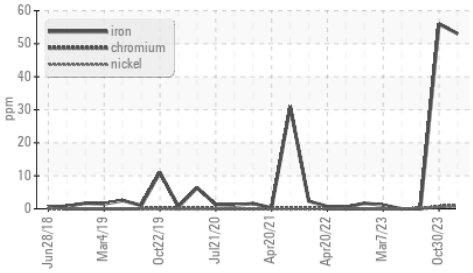
Particle Trend



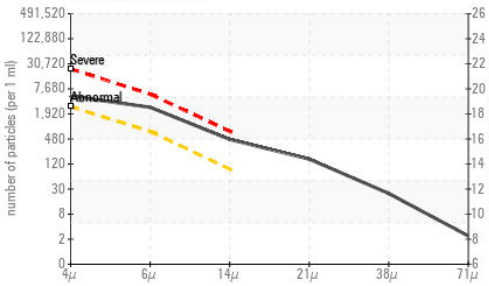
Non-ferrous Metals



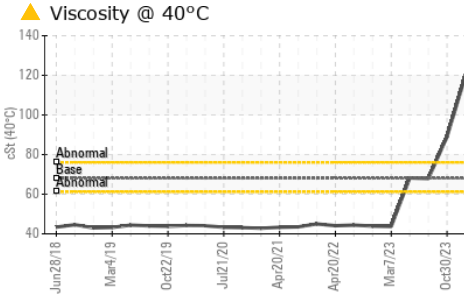
Ferrous Alloys



Particle Count



Viscosity @ 40°C



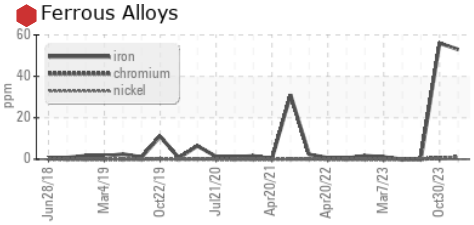
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	▲ **120**	▲ 89.0	67.9

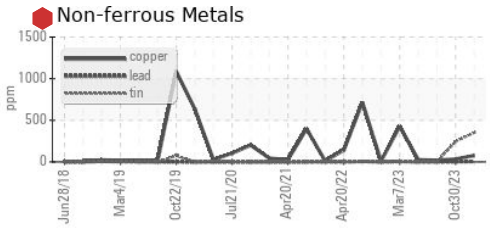
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

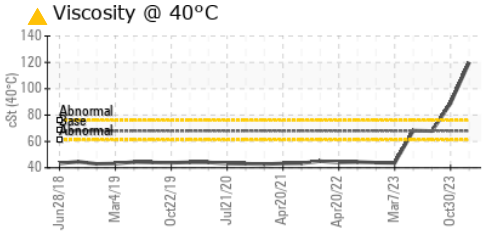
Ferrous Alloys



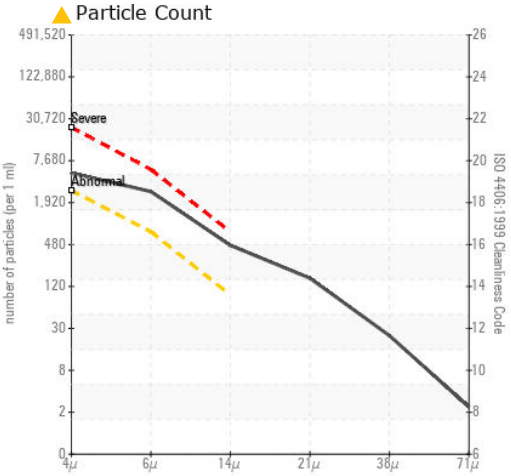
Non-ferrous Metals



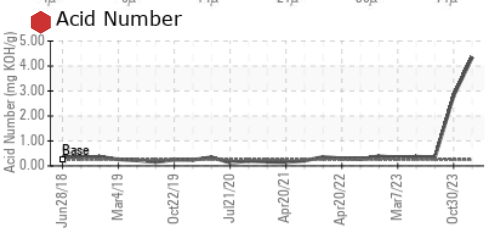
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886175
Lab Number : 06075730
Unique Number : 10857821
Test Package : IND 2

Received : 31 Jan 2024
Tested : 06 Feb 2024
Diagnosed : 06 Feb 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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